

ABSTRACT OF THE DISCLOSURE

A turbine blade includes an airfoil having opposite pressure and suction sidewalls joined together at opposite leading and trailing edges and extending longitudinally from root to tip. A plurality of independent cooling circuits are disposed inside the airfoil correspondingly along the pressure and suction sidewalls thereof. Each circuit includes an inlet channel extending through the dovetail. One of the circuits includes multiple longitudinal channels separated by corresponding perforate partitions each including a row of impingement holes for cascade impingement cooling the inner surface of the airfoil.